Serial No.: 09/829,709 Filed: April 10, 2001

Page : 2 of 11

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

(Previously Presented) A primary alkaline battery, comprising:

 a cathode comprising a cathode active material and more than about 6% of carbon
 fibers by weight;

an anode;

a separator; and

an alkaline electrolyte.

- 2. (Canceled)
- 3. (Original) The battery of claim 1, wherein the cathode comprises more than about 7% of carbon fibers by weight.
- 4. (Original) The battery of claim 1, wherein the cathode comprises more than about 8% of carbon fibers by weight.
- 5. (Original) The battery of claim 1, wherein the cathode comprises more than about 9% of carbon fibers by weight.
- 6. (Previously Presented) The battery of claim 1, wherein the cathode comprises between about 6% and about 10% of carbon fibers by weight.

Serial No. : 09/829,709 Filed : April 10, 2001

Page : 3 of 11

7. (Previously Presented) The battery of claim 1, wherein the cathode comprises between about 6% and about 7% of carbon fibers by weight.

- 8. (Original) The battery of claim 1, wherein the cathode active material comprises manganese dioxide.
- 9. (Original) The battery of claim 1, wherein the cathode comprises less than about 90% of cathode active material by weight.
- 10. (Original) The battery of claim 1, wherein the cathode comprises less than about 88% of cathode active material by weight.
- 11. (Original) The battery of claim 1, wherein the cathode comprises between about 82% and about 92% of cathode active material by weight.
- 12. (Original) The battery of claim 1, wherein the cathode comprises between about 84% and about 90% of cathode active material by weight.
- 13. (Original) The battery of claim 1, wherein the carbon fibers have an average diameter less than about 300 nanometers.
- 14. (Original) The battery of claim 1, wherein the carbon fibers have an average diameter between about 100 nanometers and about 250 nanometers.
- 15. (Original) The battery of claim 1, wherein the carbon fibers have an average diameter less than about 250 nanometers.
 - 16. (Original) The battery of claim 1, wherein the carbon fibers have been heat treated.

Serial No.: 09/829,709 Filed: April 10, 2001

Page : 4 of 11

17. (Original) The battery of claim 16, wherein the carbon fibers have been heat treated at a temperature greater than about 2000 °C.

- 18. (Presently Amended) The battery of claim 16, wherein the carbon fibers have been heated treated at a temperature between about 2600 °C and about 3100 °C.
- 19. (Original) The battery of claim 1, wherein the carbon fibers have a length less than about 2×10^5 nanometers.
- 20. (Original) The battery of claim 1, wherein the carbon fibers have an average length between about 500 nanometers and about 200,000 nanometers.
- 21. (Original) The battery of claim 1, wherein the carbon fibers have an average length between about 70,000 nanometers and about 100,000 nanometers.
- 22. (Original) The battery of claim 1, wherein the carbon fibers have between about 1 and about 500 layers of graphite.
- 23. (Original) The battery of claim 22, wherein the carbon fibers have between about 40 and about 100 layers of graphite.
- 24. (Original) The battery of claim 1, wherein the carbon fibers have an average external surface area between about $10 \text{ m}^2/\text{g}$ and about $50 \text{ m}^2/\text{g}$.
- 25. (Original) The battery of claim 1, wherein the carbon fibers have a surface energy between about 50 mJ/m² and about 300 mJ/m².

Serial No.: 09/829,709 Filed: April 10, 2001

Page : 5 of 11

26. (Original) The battery of claim 1, wherein the carbon fibers have a graphitic index of less than about 85%.

- 27. (Original) The battery of claim 1, wherein the carbon fibers have an average length equal to or greater than an average particle size of the cathode active material.
- 28. (Original) The battery of claim 1, wherein the cathode further comprises a surfactant.
- 29. (Previously Presented) The battery of claim 28, wherein the surfactant is selected from the group consisting of polyvinyl alcohol, ethylene-vinyl alcohol, and polyvinylbutyrol.
- 30. (Original) The battery of claim 1, wherein the anode comprises zinc as an anode active material.
- 31. (Previously Presented) A primary alkaline battery, comprising:
 a cathode comprising manganese dioxide and more than about 6% by weight of
 heat-treated carbon fibers having an average diameter less than about 300 nanometers;

an anode;

a separator; and

an alkaline electrolyte.

- 32. (Previously Presented) The battery of claim 31, wherein the cathode comprises between about 6% and about 10% of carbon fibers by weight.
- 33. (Previously Presented) The battery of claim 31, wherein the cathode comprises between about 6% and about 7% of carbon fibers by weight.

Serial No.: 09/829,709 Filed: April 10, 2001

Page : 6 of 11

34. (Original) The battery of claim 31, wherein the cathode has an electrical conductivity at least 3 times greater than a cathode having about 6% of graphite by weight.

35. (Previously Presented) A primary alkaline battery, comprising:
a cathode comprising between about 82% and about 92% of cathode active material
by weight and more than about 5% of carbon fibers by weight;

an anode;

a separator; and

an alkaline electrolyte.

- 36. (Previously Presented) The battery of claim 35, wherein the cathode comprises between about 84% and about 90% of the cathode active material by weight.
- 37. (Previously Presented) The battery of claim 35, wherein the cathode comprises more than about 6% of carbon fibers by weight.
- 38. (Previously Presented) The battery of claim 35, wherein the cathode comprises between about 5% and about 10% of carbon fibers by weight.
- 39. (New) The battery of claim 35, wherein the carbon fibers have an average diameter less than about 300 nanometers.
- 40. (New) The battery of claim 35, wherein the carbon fibers have an average diameter between about 100 nanometers and about 250 nanometers.
- 41. (New) The battery of claim 35, wherein the carbon fibers have an average diameter less than about 250 nanometers.

Serial No. : 09/829,709 Filed : April 10, 2001

Page : 7 of 11

42. (New) The battery of claim 35, wherein the carbon fibers have been heat treated.

43. (New) The battery of claim 42, wherein the carbon fibers have been heat treated at a temperature greater than about 2000 °C.

- 44. (New) The battery of claim 42, wherein the carbon fibers have been heated treated at a temperature between about 2600 °C and about 3100 °C.
- 45. (New) The battery of claim 35, wherein the carbon fibers have a length less than about 2×10^5 nanometers.
- 46. (New) The battery of claim 35, wherein the carbon fibers have an average length between about 500 nanometers and about 200,000 nanometers.
- 47. (New) The battery of claim 35, wherein the carbon fibers have an average length between about 70,000 nanometers and about 100,000 nanometers.
- 48. (New) The battery of claim 35, wherein the carbon fibers have between about 1 and about 500 layers of graphite.
- 49. (New) The battery of claim 48, wherein the carbon fibers have between about 40 and about 100 layers of graphite.
- 50. (New) The battery of claim 35, wherein the carbon fibers have an average external surface area between about $10 \text{ m}^2/\text{g}$ and about $50 \text{ m}^2/\text{g}$.
- 51. (New) The battery of claim 35, wherein the carbon fibers have a surface energy between about 50 mJ/m^2 and about 300 mJ/m^2 .

Serial No.: 09/829,709 Filed: April 10, 2001

Page : 8 of 11

52. (New) The battery of claim 35, wherein the carbon fibers have a graphitic index of less than about 85%.

- 53. (New) The battery of claim 35, wherein the carbon fibers have an average length equal to or greater than an average particle size of the cathode active material.
 - 54. (New) The battery of claim 35, wherein the cathode further comprises a surfactant.
- 55. (New) The battery of claim 35, wherein the surfactant is selected from the group consisting of polyvinyl alcohol, ethylene-vinyl alcohol, and polyvinylbutyrol.
- 56. (New) The battery of claim 35, wherein the anode comprises zinc as an anode active material.